0.00

Memo

JM 12-11-25

120

Quality Control

QC

											DQA:	Date:	,
NCR:	Yes	/ No				WORK ORDER NON-	100	VFOR	MANCE / UPI	DATE	•		*
											QA Closed:	Date:	
Nork Ord	er:					DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
Part						Rework Scrap Use-as-is		ı	Skid-tube Machining noforming	Crosstube Small Fab Finishing	-1	Water Jet d. Eng. Coor. e/Packaging	Engineering Quality Other
NCR	No.			<u>. </u>		Work Order Update]		Large Fab	Composite		Supplier	
Root					Descr	iption of work order update	П	nitial	Act	ion	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
oc/Data quip/Tooling													
perator Iaterial	-						,	\sim					
etup	_												, ,
ther													
rocess													•
upplier	H												
raining	H						ł						
napproved													
						F	AUL	T CATE	GORY		<u>.l.</u>		
Landi	ng (Gear				General							
		Bending				Bend		Grain			Ovalized		Pressure/Forced
		Centre No	t Concer	ntric to (o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorred	t 🗀	Weld
		Crushed/0	Crimped,			Burrs		Instruct	ions Incomplete/l	Jnclear	Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part Moved		_
		Heat Trea	t			Countersink		Mislabe	led		Positioned V	/rong	
		Inspection	Strip in	Tube		Cut Too Short		Misread	ł		Power Loss/	Surge	Other
		Ripples in	Bend			Drill Holes		Offset		<u> </u>	 4		•
		Torque W	aves in E	xtrusior	n [Drawing		Out of 0	Calibration				
		Turning Se	equence			Finish		Out of S	Sequence				
		Wave/Twi	ist in Tub	e		Folio		Outside	Dimensions				

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

93266

Page 2

November-15-1	2 10:42:15 A	M	<u> </u>	9.770)() 				
Item ID: Revision ID: Item Name:	647.1612 Splice Plate			Accept	*N9000	40100)* s	Setup Start Stop	*NS1* *NS2*
Start Date: Required Date Reference:	11/19/12 : 12/07/12	Start Qty: 5.00 Req'd Qty: 5.00	*5* *5*		Cust Item ID: Customer:				
Approvals:	Process Pl	an:	Date:	Tooling: SPC (Y/N):	Date:		ŀ	Run Start Stop	*NR1* *NR2*
Sequence ID/ Work Center I 130 *130* QC Quality Control	ID	Operation Description QC8- Inspect parts - seco	nd check	Set Up/ Run Hours AS 0.00 15 0.00 17 11 26		ool# Plan Code	Accept Qty		Reject Insp. Number Stamp
*140 *140 *Outsource4 Outsource process	- Anodize	Outsource process-Anodi Memo Issue P/O: _ HARD ANO	18504	0.00 0.00 AS PER DWG.(SEE NOTE 3	3)				12-11-26
*150 *150* Packaging Packaging		Receive & Inspect for Da	amage & Mat'l Certs	0.00			/	/hy	1 /sf (8

NCR:	Yes	/ No				WORK ORDER NON-C	ONFOR	MANCE / UP	DATE			•
										QA Closed:	Date:	200
Work Orde	er: _					DISPOSITION	,		AGAINST DE	PARTMENT	/PROCESS	
Part N						Rework Scrap Use-as-is	Ther	Skid-tube Machining moforming	Crosstube Small Fab Finishing	1	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR 1	No					Work Order Update		Large Fab	Composite	j	Supplier	
Root					Descri	ption of work order update	Initial	Act	tion	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Chief En	g Desci	ription	Date	Verification	QC Inspector
Doc/Data	Ш											
Equip/Tooling	Ц											
Operator	Ш											
Material	Ц											
Setup	Ш									'		
Other												
Process	Н											
Supplier	\vdash						}					
Training	Н											
Unapproved	LL			<u> </u>			L	FCORY		<u> </u>	<u> </u>	
Landi	na Gr					General	AULT CAT	EGURY				
Lailuii		ending				Bend	Grain		<u></u>	Ovalized	_	Pressure/Forced
	\vdash	Centre No	it Concer	ntric to (7/5	BOM/Route	Hardw	are	-	Over/Under	toloranco	Temperature/Cure
	\vdash	Cracks	Conce	itile to t	" 	Broken/Damaged	—	tion Incomplete	 	Part Incorre		Weld
	-	Crushed/(rimped			Burrs	— `	ctions Incomplete/l	Inclear	Part Lost/Mi	 	Wrong Stock Pulled
	_	Cuffs				Contamination	_	enance	-	Part Moved		J. Tong Stock Fulled
	_	leat Trea	t		-	Countersink	Mislat			Positioned V	Vrong	
	\Box	nspection	Strip in	Tube		Cut Too Short	Misre		 	Power Loss/	_	Other
	$\overline{}$	Ripples in				Drill Holes	Offset		<u> </u>	J	·	
		orque W	aves in E	xtrusior	,	Drawing	Out of	Calibration				
	_	urning Se				Finish	Out of	Sequence				

Outside Dimensions

DQA:

Date:

Wave/Twist in Tube

Folio

vvork Oru e November-15-12				*937	766*						Page 3	
Item ID: Revision ID:	647.1612			Accept	*N900	040	100)* s	etup Star	*N	S1*	
	Splice Plate								Stop	*N	S2*	
Start Date:	11/19/12	Start Qty: 5.00	*5*		Cust Item I	D:						
Required Date: Reference:	12/07/12	Req'd Qty: 5.00	*5*		Customer:							
Approvals:	Process Pla	an:	Date:	Tooling:	D	ate:		F	Run Star	171	R1*	
	QC:		Date:	_ SPC (Y/N):	D	ate:			Stop	" *N	R2*	
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
160		QC5- Inspect part comple	eteness to step on W/O	0.00								
160 QC Quality Control		Мето		0.00							05 H.	12.2
170				0.00							40	
170 SprayPaint Spray Painting		Memo PRIME IAW	√ MIL-P-23377J TYPE1(0.00 CLASS N AS PER DWG.	(SEE NOTE 3)			_5		Ø)2-12-31	
		CARDINAL	. 4860-50 PRIMER BAT	сн: 123693								
180 *4 0 0 *		QC14- Inspect Spray Pai	int	0.00				ć			DAS DE PO	\ . o/
1 AN		Memo		0.00				_2			15.01	1.05

Quality Control

										DQA:	Date	:
NCR:	Yes	/ No				WORK ORDER NON-C	CONFO	RMANCE / UF	PDATE			•
										QA Closed:	Date	:
Work Ord	er:					. DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part I	-		,			Rework Scrap Use-as-is Work Order Update	Th	Skid-tube Machining ermoforming Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update	Initia	ι Ι Δ,	ction	Sign &	<u> </u>	
Cause		Date	Step	Qty	1	or Non-conformance	Chief E		cription	Date	Verification	QC Inspector
Doc/Data											7 67 111 64 61 61 1	Qu'inspector
Equip/Tooling												
Operator	П											
Material	П	٠										
Setup	П											
Other	7											
Process	П											
Supplier	П											
Training	П											
Unapproved	П											
	<u> </u>				L	F	AULT CA	TEGORY		I.		<u> </u>
Landi	ng G	ear				General						
		Bending				Bend	Grai	in		Ovalized	Г	Pressure/Forced
	П	Centre No	t Concen	itric to	o/s	BOM/Route	Harc	lware		Over/Under	tolerance	Temperature/Cure
	П	Cracks				Broken/Damaged	Insp	ection Incomplete		Part Incorred) —	Weld
	\Box	Crushed/C	Crimped.			Burrs		uctions Incomplete,	/Unclear	Part Lost/Mi		Wrong Stock Pulled
	П	Cuffs	·			Contamination	_	ntenance		Part Moved		
		Heat Trea	t			Countersink		abeled	-	Positioned V	Vrong	
		Inspection	Strip in	Tube		Cut Too Short	Misr			Power Loss/	· ·	Other
	-	Ripples in				Drill Holes	Offs		<u> </u>		υ- 	1:
	${oldsymbol{ o}}$	Torque W		xtrusio	,	Drawing		of Calibration				
		Turning Se				Finish	\vdash	of Sequence				

Outside Dimensions

Wave/Twist in Tube

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde				*932	P66*			-	Page 4
Item ID: Revision ID:	647.1612			Accept	*N9000	40100	* Se	tup Start	*NS1*
Item Name:	Splice Plate							Stop	*NS2*
Start Date: Required Date:	11/19/12 : 12/07/12	Start Qty: 5.00 Req'd Qty: 5.00	*5* *5*		Cust Item ID: Customer:				
Reference:							Rı	ın Start	- de 1 - 1 - 1 - 1 - 1
Approvals:	Process Pla	ın:	Date:	Tooling:	Date:	<u> </u>	K		"NRT"
	QC:		Date:	SPC (Y/N):	Date:			Stop	*NR2*
Sequence ID/ Work Center I	D _i	Operation Description Identify as per dwg & Stoc	k Location: /39A	Set Up/ Run Hours	Tool ID T	ool # Plan Code	Accept Qty	Reject Qty	Reject Insp. Number Stamp
100 Packaging		Мето	77+0	0.00					43/01/9 (5)
Packaging		***IDENTIFY REV***	' AS PER APICAL MPP-	120 BY STAMPING TI	HE P# AND				,
²⁰⁰ *200*		QC21- Final Inspection - V	Vork Order Release	0.00				131	11/10 \$
QC		Memo		0.00					<i></i>

Memo

Quality Control

									DQA:	Date:	
NCR: Y∈	es / No				WORK ORDER NON-C	CONFORI	MANCE / UP	DATE	QA Closed:	Date:	•
Work Order	·:				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part No	0	,			Rework Scrap Use-as-is Work Order Update	1 1	Skid-tube Machining moforming Large Fab	Crosstube Small Fab Finishing Composite	1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Descri	ption of work order update	Initial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data											•
Equip/Tooling											
Operator					•]	
Material							1				
Setup											
Other										1	
Process											
Supplier											

			FAU	LT CATEGORY			
Landing	Gear	General					
	Bending	Bend		Grain	Ovalized		Pressure/Forced
	Centre Not Concentric to O/S	BOM/Route		Hardware	Over/Under tolerance	Г	Temperature/Cure
	Cracks	Broken/Damaged		Inspection Incomplete	Part Incorrect		Weld
<u> </u>	Crushed/Crimped.	Burrs		Instructions Incomplete/Unclear	Part Lost/Missing		Wrong Stock Pulled
	Cuffs	Contamination	Ĺ	Maintenance	Part Moved		_
	Heat Treat	Countersink		Mislabeled	Positioned Wrong		
	Inspection Strip in Tube	Cut Too Short		Misread	Power Loss/Surge		Other
	Ripples in Bend	Drill Holes		Offset			
	Torque Waves in Extrusion	Drawing		Out of Calibration			-
	Turning Sequence	Finish		Out of Sequence			
	Wave/Twist in Tube	Folio		Outside Dimensions			

Training Unapproved **Picklist Print**

November-15-12 10:42:14 AM

Work Order ID:

93266

Parent Item:

647.1612

Parent Item Name:

Splice Plate

Start Date: 11/19/12

Required Date: 12/07/12

Page 1

Start Qty: 5.00

Required Qty: 5.00

Comments:

IPP REV:A 12.10.04 NEW ISSUE DD VERF:JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.090 2024-T3 .090 sheet		Purchased	No			110	sf	47.3300	0.0322	0.1694737 O.2			IM 12-11-2

 Location
 Loc Oty
 Loc Code

 MAT022
 47.33
 47.33

 123287
 47.33
 123287

											DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-C	CONFO	RM/	ANCE / UP	DATE			•
											QA Closed:	Date:	
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N	- . No.			_		Rework Scrap Use-as-is	The	Ma	id-tube chining orming	Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR I	۷o۰ <u>-</u>					Work Order Update]	La	rge Fab	Composite		Supplier	
Root					Descri	ption of work order update	Initial	ı	Act	tion	Sign &		
Cause		Date	Step	Qty	•	or Non-conformance	Chief Er	ng	Desci	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling													
Operator							<u> </u>					:	
Material													
Setup													
Other													
Process													
Supplier								1					
Training													
Unapproved													
						F	AULT CA	TEGO	RY			-	
Landi	ng G	iear				General					_		
		Bending				Bend	Graii	n			Ovalized		Pressure/Forced
		Centre No	t Concer	ntric to	o/s	BOM/Route	Hard	ware			Over/Under	tolerance	Temperature/Cure
,		Cracks				Broken/Damaged	Inspe	ection	Incomplete		Part Incorre	ct 「	Weld
		Crushed/0	Crimped.			Burrs	Instr	uction	s Incomplete/l	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs				Contamination	Mair	ntena	nce		Part Moved	_	_
		Heat Trea	t			Countersink	Misla	abeled	!		Positioned V	Vrong	
		Inspection	Strip in	Tube		Cut Too Short	Misre	ead			Power Loss/	Surge	Other
		Ripples in	Bend			Drill Holes	Offse	et			_		
		Torque W	aves in E	xtrusio	n	Drawing	Out	of Cali	bration				
		Turning Se	equence			Finish	Out	of Seq	uence				

Outside Dimensions

Wave/Twist in Tube

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

DART AEROSPACE LTD	Work Order:	93266
Description: Splice Plate	Part Number:	647. 1612
Inspection Dwg: 647 1600 Rev: A/C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing		Actual			N-41-4-6	<u> </u>
Dimension	Tolerance	Dimension	Accept	Reject	Method of Inspection	Comments
Ø0,170°	+0.005 -0.00"	0,170"			N	Producere
0.090"	11-0.010	0,090"	_		V	7.00-50 -
2.26"	41-0.00	g 300"	_		V	
2.32"	H-0010"	2.324"	-		V	
1.445	+1- 0.002"	1.448"	~		V	
0.713	+1- 0'0000"	0.713"			V	
6.350"	t1- 0.005"	0.354"			V	• .
0.351"	H-0002"	0.381"	-		V	·
0606	4/-0.002"	0,606"	_		レ	
0.941"	4-0005	0.941"	-		v .	ji t
2.03"	11-0.010"	2.03"			~	
		47				
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<u> </u>		· · · · · · · · · · · · · · · · · · ·	- 43/4 C	L		

Measured by:	Jm		
Date:	12-11-25		

Audited by:	9-89		
Date:	12/126		

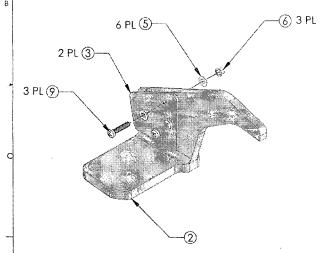
Preliminary Approv	al:
Da	te:

(1) MATERIAL: ALUMINUM 7075-T651 AM5-QQ-A-250/12

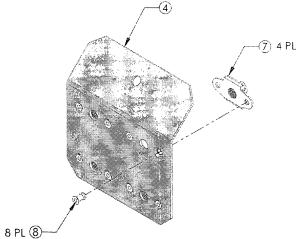
ATERIAL: ALUMINUM 2024-T3 PER AMS-QQ-A-250/4

ÉINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III. CLASS 2, COLOR BLACK: CARDINAL 4860-50 PRETREATMENT PRIMER PRIME IAW MIL P 23377 J TYPE I CLASS N

- 4. DEBURR AND BREAK ALL SHARP EDGES
- 5. IDENTIFY IAW MPP-120



647.1601 SHOWN EXPLODED



647.1602 SHOWN EXPLODED

WHICH YURNTO , VOLVEERING . SATKOL! ED COPY A CONTROL MENDMENT N. SPOLIT NOTICE 9.3266_MC5 12-11-15

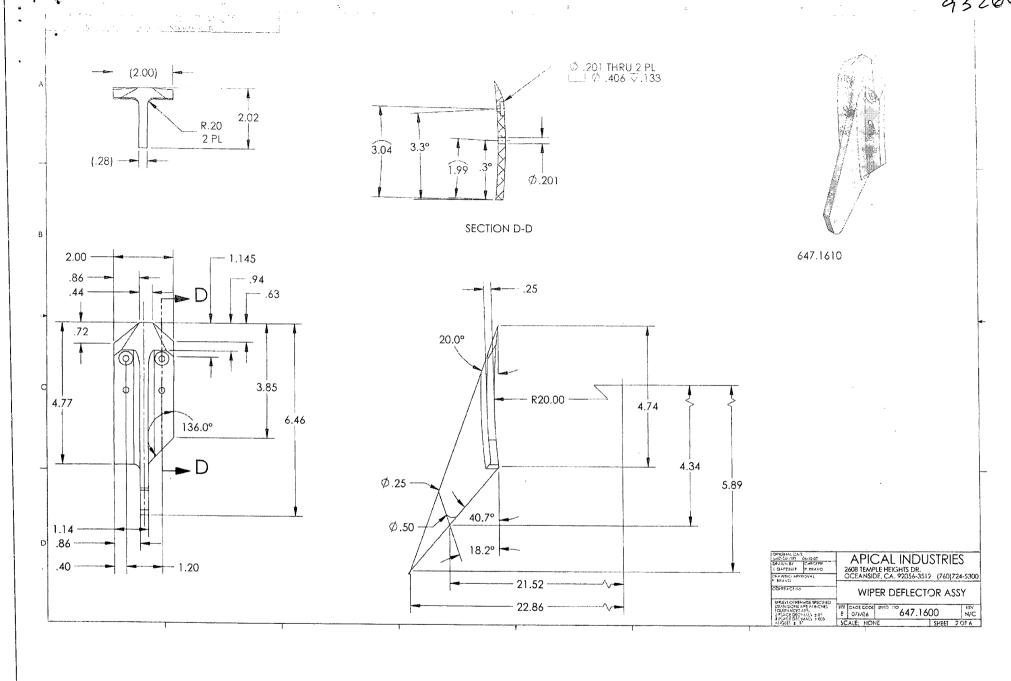
·····							
		3	7	601.2989	SCREW	rx\$27039-0612	
	8		8	601.2980	NUTPLATE RIVET	CCR26435-3-04	
	4		7	601.1900	NUTPLATE	44521059-3	
		3	6	601.2973	LOCKNUT	M\$21042-05	
		6	5	601.2764	WASHER	NAS1149FN832F	
	1		4	647.1613	DOUBLER	<u> </u>	Z 3
		2	3	647.1612	SPLICE PLATE	<u> </u>	<u> </u>
		1	2	647.1611	WIPER DEFLECTOR, AFT	Δ	<u> </u>
			1	647.1610	WIPER DEFLECTOR, FWD	\triangle	<u>/3</u>
	х			647.1602	DOUBLER ASSY		
		Х		647.1601	WIPER DEFLECTOR ASSY, AFT		
	602	.1601	FIND #	PART#	DESCRIPTION	MATL	SPEC.
G	ΥŢ				PARTS LIST		

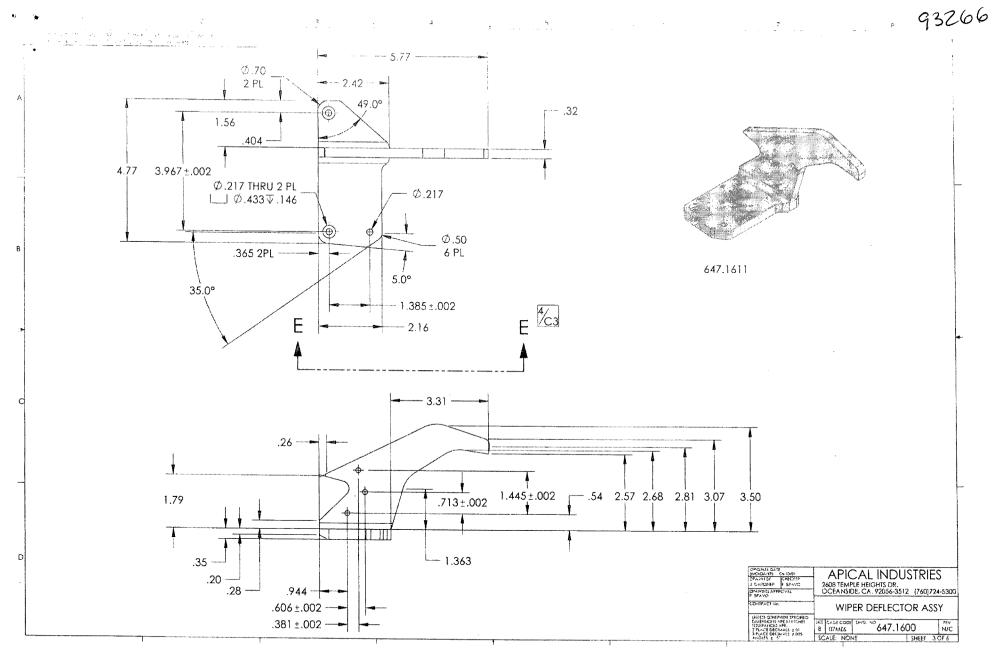
647,1300

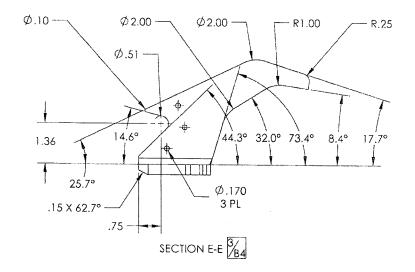
APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5300

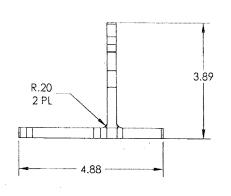
WIPER DEFLECTOR ASSY

B 07MZ6 040 400 400 47.1600

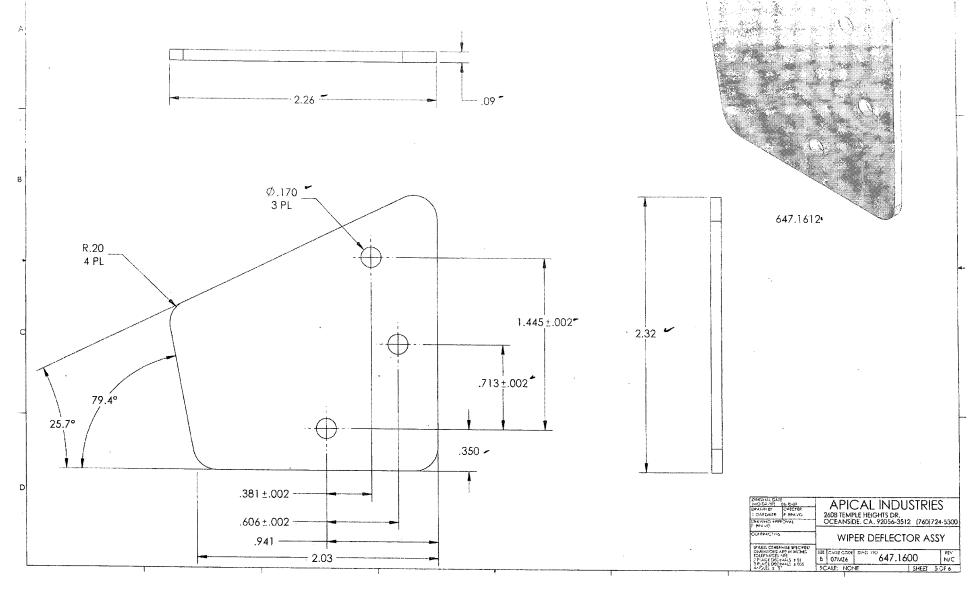


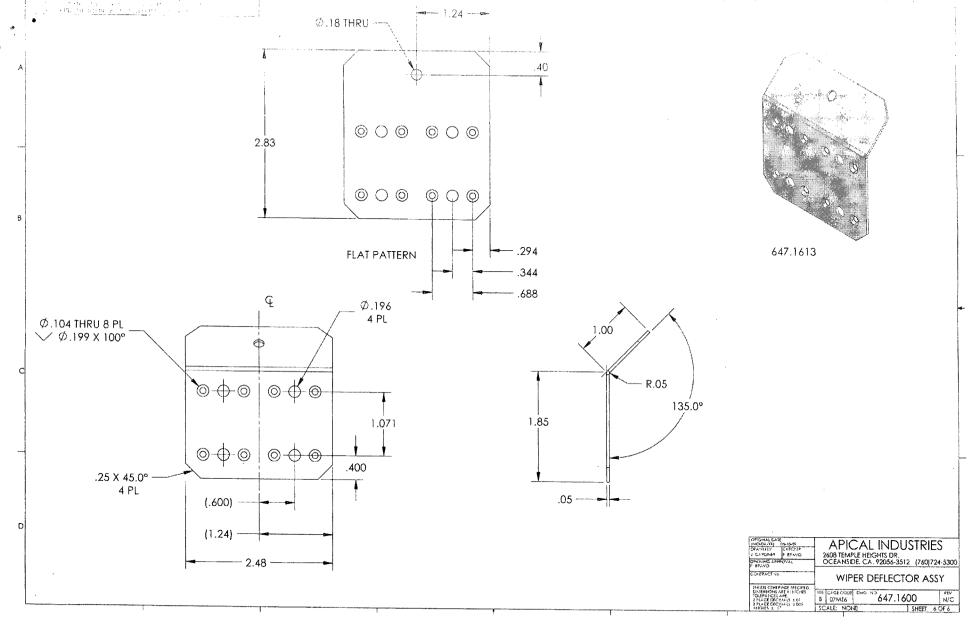






OP CREAL DATE (NO.0A. VR) - 04-10-09 DRAWIT BY CHECKER J GAPONER P. BRANC DRAWNER APPROVAL P. BRANC	APICAL IN 2608 TEMPLE HEIGHTS OCEANSIDE, CA. 920	
COMPACT No.	WIPER DEFL	ECTOR ASSY
UNITES OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FOLISANCEX ARE: 2 PLACE DECRANUL ± 01 3 PLACE DECRINALS ± 005	1 0 1100	7.1600 REV. N/C
ANGLES ± 5"	SCALE: NONE	SHEET 4 OF 6







A.T.G. Industries Inc. 731, rue Industrielle Rd. PLATING DEPARTMENT Rockland, On K4K 1T2 Canada

Ph: (613) 446-4544 Fax: (613) 446-4556

Pack List

Number: 62107

Date: 12-Dec-12

То

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 Canada Ship To

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7

Canada

Ph: 613-632-5200

Fax: 613-632-1185

1 Part	cription	Ship Via					
1 Part		<u> </u>					
1 Part							
lot	. ASST			_			
9/1 1	AOO I		Rev:				
741 1							
· 8 P	C8 647.1610						
1 5 P(CS 647.161 <u>2</u>						
	CS 647.1713						
	CS 647.1811 C 647.1816						
	C 647.1817						
	CS 647.1818						
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	PCS 646.3313	•					
	PCS 646.3717						
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	PCS 649.4811				•		
	PCS 649.4812						
24 P	CS 649.4814						
30 P	PCS 649.4815						
	CS 647.7913						
	CS 647.7919						
	PCS 647.9010 PCS 647.9011						
	CS 647.9011						
	CS 647.9013						
	PCS 646.9710						
11 1							
	RD ANODIZE BLACK						
	A-8625 TYPE III CLASS 2	DO: DO40500	1:				
JOD.	20120768	PO: PO18506	Line): 			
	Certificate of Conf	formance					
A.T.C	G. Industries certifies that all items in all requirements, specifications and	n this shipment are drawings reference	in conformance d in the purchase ord	er.			
	ISO 9001 : 2008 REGISTERED						
	ATG SALES-2010 TERMS APPLY						
<u> </u>	= 12/12/12				1 21		

Page 1 of 2



A.T.G. Industries Inc. 731, rue Industrielle Rd. PLATING DEPARTMENT Rockland, On K4K 1T2 Canada

Ph: (613) 446-4544 Fax: (613) 446-4556

Pack List

Number: 62107

Date: 12-Dec-12

To

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 Canada **Ship To**

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7

Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

erms					
	 		Ship Via		
Quantity	Descripti	on			
- Caurring	DEDELETE.	O SIGNATURE :	lh		
	CERTIFIEL	D SIGNATURE :	1111	7	
	RECEIVER	R SIGNATURE :	0///lu		
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